

# Reference Service at an Inflection Point: Transformations in Academic Libraries

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*This research project investigates whether academic libraries are developing new models of research services supporting faculty and students at their institutions, models that transform traditional transaction-based reference services to those that are sustained and relationship-based; reports from the library and information science literature and from the field in general suggest emergent models and practices that position library services more integrally in research environments and workflows of faculty and students. This investigation will provide a more focused, detailed analysis of the models and practices of a set of academic libraries that point toward a more intentional research services model.*

## Introduction

With the decline of traditional reference interactions in many academic and research libraries, perennial attempts to rethink, retool, recalibrate, and reposition reference service are still in evidence through a variety of virtual services, outreach and engagement initiatives, and redesign of library spaces into learning or information commons. Experimentation with newer approaches to reference service, however, often still lack connection with research, teaching, and learning that are the heart of the academic enterprise. With the rapid growth and utilization of mobile devices and “default” use of search engines, user self-sufficiency is the norm for certain kinds of transactions in which library staff previously provided expertise and assistance. While there is value in responding to traditional place-bound or virtual reference questions, the reactive nature of that model positions libraries around the margins of academic initiatives and strategies at an institutional level.

In order to meet emerging user needs and anticipate trends in research behavior, libraries need to

take a proactive approach and envision a new holistic model of “research services” that more appropriately encompasses reference expertise in the right environment at the right time for the right constituency. To support this hypothesis, an investigation into ten academic and research libraries’ practices for recasting reference service as a suite of research services, through review of their web sites and planning documents, and through follow-up phone interviews with appropriate library administrators, tested the reality of recalibrated and customized offerings of these libraries’ reference and research services in these environments and projects:

- virtual research environments and virtual communities of practice
- interdisciplinary project and research teams
- campus-wide cultural programming
- redesign of spaces specifically for collaborative research
- assistance with grant projects
- data services facilities

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- digital humanities projects
- undergraduate research and undergraduate scholars' projects
- provision of research assistance to student organizations and student government (whether virtual or in-site)
- provision of research assistance to research teams spanning more than one institution

Findings about initiatives to transform traditional reference service, or develop greater capacity to support research, are shown through stages of development toward research services, and a set of indicators which delineate a research services model.

## Background

The growing number of changes from traditional reference services to research services stem from a variety of factors including the changing nature of information, availability of flexible staffing models, changes to physical spaces, and a greater focus on user needs.

Reference staffing and service models have been evolving in recent years. Given the prevalence of mobile technologies and electronic resources, the user as well as the reference librarian no longer needs to be tied to the physical space. While the traditional role of the reference librarian has been changing as a response to prevalence of technology, the responsibilities for outreach and extension beyond the physical library building have become increasingly important since the study by Cardina and Wicks in 2004.<sup>1</sup> Librarians are often asked to serve as liaisons to academic departments, collection managers, promoters of other library services, and collaborators with faculty to embed information literacy concepts into curriculum. David Tyckoson summarizes the changes to reference services as well as librarian skills sets and user expectations in his review of reference services from a management perspective.<sup>2</sup> Wang et al. conducted a study in 2010<sup>3</sup> to examine roles of reference librarians and they found that reference librarians' responsibilities evolved over time as demonstrated through advertised job titles, from bibliographer to database/online searching reference librarian to Web services librarian. There have also been several articles in the literature that have dealt with various aspects of the new demands on librarianship<sup>4,5</sup> to the role of the reference librarian in new spaces, such as learning commons.<sup>6</sup> Often these studies survey reference librarians to determine their various roles, rather than exam-

ining the service model holistically by interviewing administrators who are re-envisioning reference or research services offered by the library.

The creation and evolution of a Learning Commons/Research Commons/Scholarly Commons transition or addition to traditional reference services has been a trend in the last 5-10 years. There is no "one size fits all" Commons model, according to Beagle.<sup>7</sup> Commons started as a partnership typically between libraries and IT, where there was a central service desk staffed by both partners; this arrangement was usually referred to as Information Commons.<sup>8</sup> As the partnerships grew to include additional spaces and partners, the focus shifted to activities occurring in the space and the nomenclature evolved into Learning Commons, where the focus is on collaboration in a shared space with targeted service support.<sup>9</sup> These spaces could include such partners as instructional designers, information technologists, peer mentors, writing specialists, or others. Most recently the focus has continued to shift to a deeper engagement with the research process, in addition to writing skills, technology skills, or other academic support, and these spaces are commonly referred to as Research or Scholarly Commons. Regardless of the name, Scott Bennett aptly points out that the focus of any discussion should revolve around what should happen in the space, rather than what should be in the space.<sup>10</sup> By taking a programmatic approach to space and the services therein, user needs are examined and addressed. Lippincott also stresses two points when thinking of services in a Commons model: "personal connections between library staff and users and promotion of library services."<sup>11</sup> She also notes that Commons serve two distinct functions, namely a communal aspect of the library as well as the opportunity for social learning.

Many changes are being implemented at institutions of higher learning to respond to researcher needs, enhancing the user experience as well as the changing nature of information, and in response to trends in the field of library science. Users have taken a more active role in the research process and become a collaborator with librarians. New models of reference services where users and librarians collaborate to solve a research problem have been developed to respond to these changing user behaviors.<sup>12</sup> As part of this process, at times users are asked for their input on design of such spaces in the library. For example,

at San Jose State University, librarians used collaborative design methodology to increase ideas, interaction, and feedback about redesigned library spaces.<sup>13</sup> Martin posits that “societal transformation has more immediate relevance to reference services than technological advancement.”<sup>14</sup> She also notes that as the nature of information evolves how we serve users in an academic environment also must change. While users are comfortable with technology and often referred to as digital natives, there is some discussion in both libraries and educational systems of users’ level of digital fluency. Additionally, user needs will continue to grow, particularly in the areas of data management and data curation, and the library should be central in these efforts.<sup>15</sup>

### Research Design

In order to test the hypothesis of a change in emergent research services models in academic libraries, ten academic library administrators were interviewed, using a set of questions (Appendix 1) to collect information on the practices regarding research services support and continued reference service practices at each institution. Libraries were selected based on available web documents that provided evidence of (1) emergent models of research services in the libraries’ web sites, planning documents, strategic plans, organization charts; (2) traditional or newer forms reference service that are positioned as one part of an overall strategic array of research services; and (3) likelihood that the interviewed library would contribute to a newer library profession-wide model of research services as a result of this study.

Of the libraries selected for interviews they were comprised of: a small liberal arts institution, four land grant institutions, two technical schools, and four private institutions. Nine schools offered graduate degrees. One school had less than 5,000 students, two had approximately 10,000 students, two had around 20,000 students, two had around 30,000 students, and three had student populations around 40,000. At each school the AUL/Associate Director for Public Services was contacted via email to participate in the research study. After consenting to participate, individuals were sent a background paper on Research Services from which a set of eight research questions were derived for the phone interview. All interviews were scheduled for 45 minutes to an hour and the investigators took notes from the conversations which

were based on the same eight questions. Follow-up questions were asked as necessary. Questions focused on organizational change processes based on strategic plans, changes to physical delivery of services, embedding librarians into departments, expansion and promotion of research services, and assessment of services. Time was provided at the end of each conversation for the participant to provide additional details not covered in the set of questions. After phone interviews, the notes were compiled and mined for trends related to changes from reference services to research services.

### Results

Many libraries mentioned progress in some, if not most, of the areas addressed by the questions. Of the ten libraries, seven had undergone organizational restructuring in the past five years. All of the libraries indicated a decline in face-to-face reference services offered at a reference desk, though some had seen an increase in chat and/or email questions. The staffing of the reference desk is also in upheaval. Some libraries are handling chat/email questions on the desk, while others handle it from offices, and one library has set up a separate desk that handles only virtual reference.

Six of the libraries have either created or reallocated staff into new positions/ new roles including: data librarian (for science, health sciences, and social sciences), digital humanities librarian, GIS librarian, data management librarian. Many of the libraries are staffing the reference desk with paraprofessionals, graduate students, or undergraduates rather than librarians. For those libraries that still have librarians on the desk, they are there for less than five hours per week or the school has set up a flexible schedule so that librarians are only on the desk during busy reference weeks. Two of the libraries have completely closed their main reference desk and consolidated service points with circulation and librarians are only called to the desk for referrals. This change of staffing has allowed eight of the libraries to offer enhanced research support either through the library or through partners. These services include grant support, user experience, better instructional support, basic data management services, copyright consultations, focus on scholarly communications, digitization projects, digital centers that assist with data software, embedding information literacy into curriculum, and digital scholarship.

Six of the libraries are showcasing student works, while four libraries are highlighting the work of the faculty. Most of this promotion is done in the physical space of library buildings but one library is highlighting work through social media feeds on the library homepage.

Many of the libraries have redesigned or repurposed space in the library to encourage collaboration. Some libraries are faced with space constraints in their physical buildings. In the process of examining spaces, five libraries have provided flexible office space that allows for consultations either with librarians or with other partners from around campus. Most of the libraries indicated that they have created more group study rooms or other collaboration spaces. A few of the libraries had time to create a plan to revitalize a space, but many indicated that they have made improvements incrementally as money and space allowed.

The libraries interviewed identified some areas for development: assessment and marketing/promotion of services. Interestingly only two of the libraries had any formal assessment methods in place for measuring the impact of subject librarians in academic departments, and those two acknowledged that the measures used were simplistic. Two of the libraries indicated that they recently hired an assessment librarian and measuring impact was high on their priority list. The other area that the interviewees indicated they would like to improve was marketing of research services. Many indicated that they would like to have a targeted approach to various constituencies to ensure their services were relevant and used.

### **Stages of Development and an Emergent Model for Research Services**

The interviews conducted with the ten academic library administrators demonstrate that an emergent model for research services is visible, as libraries continue to shift their focus from generic reference assistance to specialized research assistance positioned within the workflows and aligned with the practices of researchers at all levels. Progress in developing a new model for research services is uneven, with overlapping stages of development, different organizational structures, and legacy issues still growing out of the long history of dedicated service offered at traditional service points. The ongoing impact of the networked environment, of full-text resources delivered to the

desktop or to other devices, of researchers' drive for self-reliance and self-sufficiency, of the impact of mobile computing and concomitant expectations for instantaneous availability of answers to any conceivable question, of specialized aggregating/value-added service sites on the Web—all of these trends over the past fifteen years have dealt a “disintermediating” blow to traditional reference service, and steps taken by academic libraries to counteract this loss of presence and visibility in the minds of library users are by now familiar: development of virtual reference services using various technologies; increased outreach and marketing; and linking reference service to other academic support services.

Based on the interviews with these libraries, however, an emergent model for research services is still visible, with developments and trends organized into the following Stages. Specific trends in some stages coexist with trends in other stages, so these are not clearly delineated stages of development where some aspects are completed and new ones start; rather, these stages describe normative patterns of development over time, in which certain features are more likely to be associated with others (e.g., consolidating service points; move to research consultations). Some libraries skip some of these developments in one stage, while others have multiple trends from all three stages present in their service delivery. In this sense, the Stages are cumulative and additive, with Stage Two growing out of Stage One, and Stage Three growing out of Stage Two. Some libraries are mostly at Stage One, others are growing from Stage One into Stage Two, and some reach Stage Three. The Research Services Model hypothesized here can combine elements from all three stages, but the most complete Model emphasizes the following indicators:

1. A strategic approach for offering assistance to researchers and scholars at various stages of knowledge creation—idea/problem formulation, background research, context-setting within the research landscape or scholarly conversation, data collection, data analysis, informal presentation, and formal publication
2. Reconceptualized roles for subject specialist librarians, with redesign of positions a likely option; or the addition of new positions altogether, especially focused on data, copyright, publishing, and scholarly communication

3. Programmatic partnerships around research workflows and research practices, with other units beyond the libraries (grant support, data management, interdisciplinary initiatives)
4. An integrated “research services” suite available to users in a programmatic approach.
5. Repurposed space within libraries focused on research support
6. Strategies for showcasing research output, either physically or virtually

With these aspects of the most fully-featured Research Services Model in mind, we can offer the following Stages of Development towards that Model, with the caveat that these Stages are meant to stimulate thinking about possibilities for developing a Research Services suite over time through ongoing strategizing.

### Stage One: Maintenance/Small Transitions

The academic libraries interviewed identified the following trends, many of them by now familiar, that move toward more in-depth reference service where it is needed (research consultations) and de-emphasize service where it is no longer needed, with changes in staffing as appropriate. The primary indicators of Stage One are:

- Static/Declining reference desk activity
- Offering chat/email/text, other “virtual services” (with only modest increases in virtual services noticeable)
- Consolidation of service points (reference, information, circulation, government information other specialized service desks)
- Different staffing patterns at service points (reduction of professional librarian time at service desks, combined with paraprofessional or student assistant staffing)
- More focus on self-help/self-assistance for the researcher (printed handouts, web guides, LibGuides, online tutorials, etc.)
- Promotion of research consultations within libraries (tiered reference, office consultations)

### Stage Two: Engagement Beyond the Library

This stage often overlaps with Stage One but represents more outward energy focused beyond the library building itself, or beyond legacy services. The key indicators here are “intelligence gathering” on the part of subject librarians, as well as emergent partner-

ships. Understanding the environments in which faculty and students live and work, in their own spaces, enables the library to imagine and create new research support services.

The primary indicators of this Stage are:

- Intentional de-emphasis on traditional reference service through alternative staffing or a unified desk model.
- Embedded librarians with office hours in academic departments or in other campus locations
- Subject specialist librarians involved in “intelligence gathering” for departments or research teams, with greater focus on research initiatives, grants, faculty research interests, curriculum reviews
- New programmatic partnerships (library develops partnerships with I.T. organizations in support of research) where events are held in the library or sponsored by the library in spaces outside of the library.
- Planning of Learning or Research Commons in order to repurpose space, reduce/relocate print reference collections.

### Stage Three: Re-envisioning Services Within (and Beyond) the Library

This stage builds on the previous two Stages—it is an outgrowth of previous work in refocusing traditional reference service, in developing the “embedded librarian” model, and in having subject or liaison librarians collect information more completely from academic departments, and in forging new partnerships. This Stage sees a re-envisioning of space with libraries and the creation of a new suite of services within repurposed space, while at the same time positioning subject or liaison librarians more completely into workflows and research practices of faculty and some students around all parts of the knowledge lifecycle.

The primary indicators for this stage are:

- Creation of Learning Commons or Research Commons facilities (with the latter “commons” the more recent development): these facilities bring together services supporting learning or research from within or beyond the library. At one end of the spectrum, Writing Center, tutoring services, and information technology support are provided for basic academic work; at the other end of the



spectrum, Grants Office, Digital Publishing, Data Services, Data Visualization, and other services and supporting technologies are made available.

- Reimagining library space as a collaborative hub designed for research and learning where programming actively occurs to bring researchers in to share their findings and collaborate both with colleagues and librarians on research projects.
- New kinds of positions are created: Data Management/Data Services; Copyright Assistance; Scholarly Communication, Geospatial Support Services, all of which support researchers in various parts of their work
- New kinds of specialty research services are created: Research Data Management; curation of researcher profiles; bibliometric analysis of research output; support for personal content management; digitization services; support for digital humanities or data mining.
- Subject or liaison librarians participate as co-researchers/co-investigators in grants/research projects with faculty
- Subject or liaison librarians learn/apply project management skills

In addition, the most fully realized Research Services Model offers the following:

- Library space as interdisciplinary conversation point or “incubator space”/think tank space
- Data visualization studios or labs
- Areas or options for showcasing research output (physical or virtual)
- Usability labs or other tools used in evaluating the user experience related to library services.

The Research Services Model most completely realized in Stage Three encapsulates reconceived roles, new partnerships, revitalized/repurposed space, strategic placement of resources and expertise within workflows and practices, an integrated “suite of services” visible and understandable to members of the communities served, and options for showing research results and outputs.

Another way to examine this continuum from reference to research services is through the scale found in Appendix 2. Libraries could mark in each category where they are expending their efforts. This visual should aid in determining which stage each library is currently occupying as well as suggesting ways to move along the continuum to a more complete research services offering.

## Conclusion

While individual research services continue to become a growing trend in academic libraries, thinking of them as a holistic suite of services to be offered to researchers, whether undergraduate, graduate, or faculty, will create a more programmatic approach to addressing user needs. While many libraries interviewed are offering many of the services mentioned in each stage of the proposed model, most libraries approached each research service area individually rather than as an integrated suite of services. By taking a programmatic approach to research services on campus, needs of researchers can be examined and addressed more completely.

Additional areas that many libraries are examining revolve around assessment of services, both those offered in library buildings as well as those offered by librarians remotely. Most libraries are being asked to demonstrate a return on investment for services as well as determining subject specialist impact within each department. By studying the impact of service as well as the engagement of library staff, libraries will be able to better coordinate library strategic priorities, and align with university strategic priorities for research. The proposed Research Services Model, by extending the idea of specialized reference service, revitalizes the reference service mission and positions it more closely with researchers’ needs, creating a more visible and seamless suite of support services. The proposed Model is at various stages of development within the research library community; the implementation of various elements within it, and emerging thinking about the underpinnings of a more integrated approach, mark major progress for libraries in contributing more completely to research, scholarship, and learning at their institutions.

## Appendix 1: Phone Interview Questions/Telephone Script

1. Has your library intentionally developed a change process (through a strategic planning process, reorganization, recruitment for new positions, or redeployment and/or retraining/professional development of existing staff) to transition from a traditional reference service model to an expanded model that emphasizes research support for faculty, students or others at your institution?
2. What steps have your subject or liaison librarians taken to embed themselves in academic departments, centers, research initiatives, cultural programming initiatives, at your institution? What metrics are you using to determine if such efforts by subject of liaison librarians are having an impact?
3. Have you seen a decline in traditional reference activity (reference desk) in the past decade? Are there other areas of reference activity (email, text, chat) that are increasing? How are you staffing reference service points (desks, call centers)—librarians, classified staff, students, volunteers?
4. Are you maintaining traditional reference service alongside an “add-on” research services” suite; reducing your focus on traditional reference service and expanding your focus on research services; or replacing reference service with an enhanced research services suite?
5. How does your library showcase faculty work? Student work?
6. Have you redesigned/repurposed space in your library to facilitate collaboration between the library and other campus unit to support research services? If so, please describe.
7. How are linkages created or referrals made from reference service points or other service points to those research services (IR/scholarly publishing, copyright, grant support) that you may offer at your institution? How are your research services marketed or promoted?
8. Of the following areas that offer potential for transforming reference service into a new research services suite, in which ones do you believe you have made the greatest progress in positioning the library’s presence? (The top three) In which ones do you believe you have made the least progress?
  - a. Virtual research environments and virtual communities of practice
  - b. Interdisciplinary project and research teams
  - c. Campus-wide cultural programming
  - d. Redesign of spaces specifically for collaborative research
  - e. Assistance with grant projects
  - f. Data service facilities/data management support
  - g. Digital humanities projects
  - h. Undergraduate research and undergraduate scholars’ projects
  - i. Provision of research assistance to student organizations and student government
  - j. Provision of research assistance to research teams spanning more than one institution
9. Are there other areas where you would like to report on making progress in advancing research services?

## Appendix 2: Reference to Research Services Spectrum

Traditional Reference		Research Services			
Stage One		Stage Two		Stage Three	
Staffing Patterns on the Desk					
Librarian on the desk 12-15 hours/week	Librarian on the desk 5-7 hours/week	Librarian on the desk 2-3 hours/ week	Librarian only available on call		
Librarian engagement in the department					
Librarian is available through phone and email	Librarian holds office hours within the department	Librarian attends symposia and other departmental events	Librarian is included on research projects		
Reference/Research Services					
Reference service provided at a desk within the library	Chat/text services offered away from the desk	In addition to other venues, many reference questions are handled through web guides.	Research services at the point of need (dorms, offices, laboratories.)		
External Partnerships					
Library has no partnerships with external service groups (writing center, IT, Office of Research)	Partners hold office hours in the library	Partners have permanent space in the library	Library has space/ presence in the partner's space on campus.		
Strategic Planning Process					
Reference services are not included on the strategic plan	Some modifications to reference services are addressed in the strategic plan	Re-envisioning research services is included in the plan	A new model for research services is included in the strategic plan		
Space Changes					
No space change planned	Staffed points are consolidated	Collaboration spaces are created (group study rooms, etc)	A commons space with a programmatic approach is created.		



## Notes

1. Cardina, Christen and Donald Wicks. 2004. "The Changing Roles of Academic Reference Librarians over a Ten-Year Period." *Reference and User Services Quarterly* 44 (2): 133-142.
2. Tyckoson, David A. 2012. "Issues and Trends in the Management of Reference Services: A Historical Perspective." *Journal of Library Administration* 52 (6-7): 581-600.
3. Wang, Hanrong, Yingqi Tang, and Carley Knight. 2010. "Contemporary Development of Academic Reference Librarianship in the United States: a 44-year Content Analysis." *The Journal of Academic Librarianship* 36 (6): 489-494.
4. Knibbe-Haanstra, Marcella. 2008. "Reference Desk Dilemmas: The Impact of New Demands on Librarianship." *Reference and User Services Quarterly* 48 (1): 20-25.
5. Saunders, Laura. 2012. "The Reality of Reference: Responsibilities and Competencies for Current Reference Librarians." *Public Services Quarterly* 8: 114-135.
6. Wolfe, Judith A., Ted Naylor, and Jeanetta Drueke. 2010. "The Role of the Academic Reference Librarian in the Learning Commons" *Reference and User Services Quarterly* 50 (2): 108-113.
7. Beagle, Donald. 2012. "The Emergent Information Commons: Philosophy, Models, and 21st Century Learning Paradigms." *Journal of Library Administration* 52: 518-537.
8. Dallis, Diane and Carolyn Walters. 2006. "Reference Services in the Commons Environment." *Reference Services Review* 34(2): 248-260.
9. Somerville, Mary M. and Navjit Brar. 2010. "From Information to Learning Commons: Campus Planning Highlights." *New Library World* 111 (5/6): 179-188.
10. Bennett, Scott. 2008. "The Information or the Learning Commons: Which Will We Have?" *The Journal of Academic Librarianship* 34 (4): 183-185.
11. Lippincott, Joan K. 2012. "Information Commons: Meeting Millennials' Needs." *Journal of Library Administration* 52: 538-548.
12. Agosto, Denise E., Lily Rozaklis, Craig MacDonald, and Eileen G. Abels. 2011. "A Model of the Reference and Information Service Process: An Educators' Perspective." *Reference and User Services Quarterly* 50 (3): 235-44.
13. Somerville, Mary M. and Lydia Collins. 2008. "Collaborative Design: a Learner-centered Library Planning Approach." *The Electronic Library* 26(6): 808-820.
14. Martin, Pamela. 2009. "Societal Transformation and Reference Services in the Academic Library: Theoretical Foundations for Re-envisioning Reference." *Library Philosophy and Practice* May. Accessed February 13, 2013. <http://unllib.unl.edu/LPP/pamelamartin.htm>.
15. Tenopir, Carol, Ben Birch, and Suzie Allard. 2012. "Academ-

ic Libraries and Research Data Services: Current Practices and Plans for the Future." *An ACRL White Paper*. Accessed January 20, 2013. [http://www.ala.org/acrl/sites/ala.org/acrl/files/content/publications/whitepapers/Tenopir\\_Birch\\_Allard.pdf](http://www.ala.org/acrl/sites/ala.org/acrl/files/content/publications/whitepapers/Tenopir_Birch_Allard.pdf)